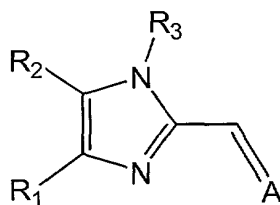


What is claimed is:

1. A compound of Formula I



Formula I

wherein:

- 5 R<sub>1</sub> is selected from the group consisting of phenyl (optionally substituted with one to five substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, halogen, nitro, trifluoromethyl and nitrile) and heteroaryl (wherein heteroaryl contains 5 to 6 ring atoms);
- 10 R<sub>2</sub> is selected from the group consisting of phenyl (optionally substituted with one to five substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, halogen, nitro, trifluoromethyl and nitrile) and heteroaryl (wherein heteroaryl contains 5 to 6 ring atoms and is optionally substituted with one to four substituents independently selected from the group consisting of
- 15 C<sub>1-5</sub>alkyl and halogen);
- R<sub>3</sub> is selected from the group consisting of hydrogen, C<sub>1-5</sub>alkyl, arylC<sub>1-5</sub>alkyl (wherein aryl is optionally substituted with one to four substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, halogen and amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl)), heteroarylC<sub>1-5</sub>alkyl (wherein heteroaryl contains 5 to 6 ring atoms), aminoC<sub>1-5</sub>alkyl, diaminoC<sub>1-5</sub>alkyl, phthalimidoC<sub>1-5</sub>alkyl, succinimidoC<sub>1-5</sub>alkyl, SEM, C<sub>1-5</sub>alkylcarbonyl, C<sub>1-5</sub>alkylcarbonylC<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxycarbonyl, arylcarbonyl, aryloxy carbonyl, arylC<sub>1-5</sub>alkyloxy carbonyl and aryloxy carbonylC<sub>1-5</sub>alkyl;
- 20
- 25

A is a five to seven member heterocyclyl ring optionally substituted with one to

two substituents independently selected from X; wherein the ring has an unsaturated bond of attachment at a ring carbon atom; has a ring nitrogen atom substituted with a substituent selected from W adjacent to the ring carbon of attachment; has a ring carbon atom adjacent to the ring carbon of attachment; optionally has 1 or 2 double bonds formed in the ring between adjacent ring members; and, optionally has 1 or 2 ring members independently selected from the group consisting of O, N and S;

W is a substituent selected from the group consisting of hydrogen, C<sub>1-5</sub>alkyl,

C<sub>1-5</sub>alkoxy, aminoC<sub>1-5</sub>alkyl (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl), arylC<sub>1-5</sub>alkyl and heteroarylC<sub>1-5</sub>alkyl (wherein the aryl, heteroaryl and C<sub>1-5</sub>alkyl portions of any of the foregoing substituents are optionally substituted with one to three substituents independently selected from the group consisting of halogen, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, aryl, heteroaryl, amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl) and nitrile); and,

X is a substituent selected from the group consisting of C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkenyl,

C<sub>1-5</sub>alkynyl, C<sub>1-5</sub>alkoxy, amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl), aminoC<sub>1-5</sub>alkyl (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl), aryl, arylC<sub>1-5</sub>alkyl, heteroaryl and heteroarylC<sub>1-5</sub>alkyl (wherein the aryl, heteroaryl and C<sub>1-5</sub>alkyl portions of any of the foregoing substituents are optionally substituted with one to two substituents independently selected from the group consisting of halogen, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, aryl, heteroaryl, amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl) and nitrile);

and pharmaceutically acceptable salts thereof.

2. A compound of claim 1 wherein R<sub>1</sub> is phenyl (optionally substituted with

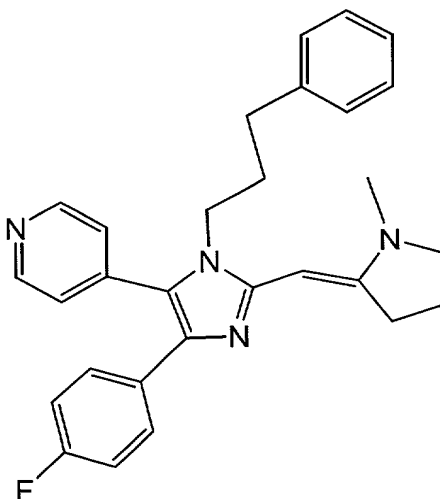
one to five substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl and halogen).

3. A compound of claim 2 wherein R<sub>1</sub> is phenyl substituted with a substituent selected from halogen.
4. A compound of claim 3 wherein R<sub>1</sub> is phenyl substituted with fluorine.
5. A compound of claim 1 wherein R<sub>2</sub> is heteroaryl (wherein heteroaryl contains 5 to 6 ring atoms and is optionally substituted with one to four substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl and halogen).
6. A compound of claim 5 wherein R<sub>2</sub> is selected from the group consisting of 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyrrolyl, 3-pyrrolyl, 2-pyrrolinyl, 3-pyrrolinyl, 4-pyrrolinyl, 5-pyrrolinyl, 2-oxazolyl, 4-oxazolyl, 5-oxazolyl, 2-thiazolyl, 4-thiazolyl, 5-thiazolyl, 2-imidazolyl, 4-imidazolyl, 5-imidazolyl, 2-imidazolyl, 4-imidazolyl, 5-imidazolyl, 3-pyrazolyl, 4-pyrazolyl, 5-pyrazolyl, 3-pyrazolyl, 4-pyrazolyl, 5-pyrazolyl, 3-isoxazolyl, 4-isoxazolyl, 5-isoxazolyl, 3-isothiazolyl, 4-isothiazolyl, 5-isothiazolyl, 4-1,2,3-oxadiazolyl, 5-1,2,3-oxadiazolyl, 4-1,2,3-triazolyl, 5-1,2,3-triazolyl, 2-1,3,4-thiadiazolyl, 5-1,3,4-thiadiazolyl, 2-pyridinyl, 3-pyridinyl, 4-pyridinyl, 3-pyridazinyl, 4-pyridazinyl, 2-pyrimidinyl, 4-pyrimidinyl, 5-pyrimidinyl, 2-pyrazinyl, 3-pyrazinyl and 2-1,3,5-triazinyl optionally substituted with one substituent selected from C<sub>1-5</sub>alkyl.
7. A compound of claim 6 wherein R<sub>2</sub> is selected from the group consisting of 4-pyridinyl, 4-pyrimidinyl and (2-butyl)pyridin-4-yl.
8. A compound of claim 1 wherein R<sub>3</sub> is selected from the group consisting of hydrogen, C<sub>1-5</sub>alkyl and arylC<sub>1-5</sub>alkyl (wherein aryl is optionally substituted with one to four substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, halogen and amino (wherein

amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl)).

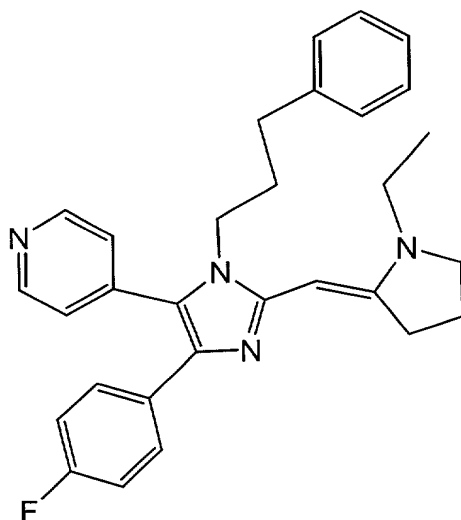
9. A compound of claim 8 wherein R<sub>3</sub> is selected from the group consisting of hydrogen and phenylC<sub>1-5</sub>alkyl (wherein phenyl is optionally substituted with one substituent selected from C<sub>1-5</sub>alkoxy).
10. A compound of claim 9 wherein R<sub>3</sub> is selected from the group consisting of benzyl, phenethyl and phenylpropyl.
11. A compound of claim 1 wherein A is selected from the group consisting of pyrrolidinyl, imidazolidinyl, pyrazolidinyl, piperidinyl, morpholinyl, thiomorpholinyl, piperazinyl, hexahydro-1*H*-azepine, hexahydro-1*H*-1,3-diazepine, hexahydro-1,3-oxazepine, hexahydro-1,3-thiazepine and hexahydro-1*H*-1,3,5-triazepine.
12. A compound of claim 11 wherein A is selected from the group consisting of pyrrolidinyl, imidazolidinyl, pyrazolidinyl, piperidinyl and piperazinyl.
13. A compound of claim 1 wherein W is a substituent selected from the group consisting of hydrogen, C<sub>1-5</sub>alkyl and C<sub>1-5</sub>alkoxy (wherein C<sub>1-5</sub>alkyl for any of the foregoing substituents is optionally substituted with one to three substituents independently selected from the group consisting of halogen, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, aryl, heteroaryl, amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl) and nitrile).
14. A compound of claim 13 wherein W is a substituent selected from the group consisting of hydrogen and C<sub>1-5</sub>alkyl.
15. A compound of claim 14 wherein W is a substituent selected from the group consisting of hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, *n*-butyl and *t*-butyl.

16. A compound of claim 1 wherein X is a substituent selected from the group consisting of C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkenyl, C<sub>1-5</sub>alkynyl, C<sub>1-5</sub>alkoxy and amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl).
17. A compound of claim 16 wherein X is a substituent selected from C<sub>1-5</sub>alkyl.
18. A compound of claim 17 wherein X is a substituent selected from the group consisting of methyl, ethyl, *n*-propyl, *i*-propyl, *n*-butyl and *t*-butyl.
19. A compound of claim 1 selected from



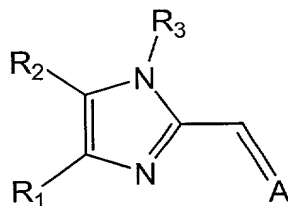
and pharmaceutically acceptable salts thereof.

20. A compound of claim 1 selected from



and pharmaceutically acceptable salts thereof.

- 5 21. A method for preparing a compound of Formula I



Formula I

wherein

- 10 R<sub>1</sub> is selected from the group consisting of phenyl (optionally substituted with one to five substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, halogen, nitro, trifluoromethyl and nitrile) and heteroaryl (wherein heteroaryl contains 5 to 6 ring atoms);

- 15 R<sub>2</sub> is selected from the group consisting of phenyl (optionally substituted with one to five substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, halogen, nitro, trifluoromethyl and nitrile) and heteroaryl (wherein heteroaryl contains 5 to 6 ring atoms and is optionally substituted with one to four substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl and halogen);

R<sub>3</sub> is selected from the group consisting of hydrogen, C<sub>1-5</sub>alkyl, arylC<sub>1-5</sub>alkyl (wherein aryl is optionally substituted with one to four substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, halogen and amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl)), heteroarylC<sub>1-5</sub>alkyl (wherein heteroaryl contains 5 to 6 ring atoms), aminoC<sub>1-5</sub>alkyl, diaminoC<sub>1-5</sub>alkyl, phthalimidoC<sub>1-5</sub>alkyl, succinimidoC<sub>1-5</sub>alkyl, SEM, C<sub>1-5</sub>alkylcarbonyl, C<sub>1-5</sub>alkylcarbonylC<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxycarbonyl, arylcarbonyl, aryloxy carbonyl, arylC<sub>1-5</sub>alkyloxy carbonyl and aryloxy carbonylC<sub>1-5</sub>alkyl;

A is a five to seven member heterocyclyl ring optionally substituted with one to two substituents independently selected from X; wherein the ring has an unsaturated bond of attachment at a ring carbon atom; has a ring nitrogen atom substituted with a substituent selected from W adjacent to the ring carbon of attachment; has a ring carbon atom adjacent to the ring carbon of attachment; optionally has 1 or 2 double bonds formed in the ring between adjacent ring members; and, optionally has 1 or 2 ring members independently selected from the group consisting of O, N and S;

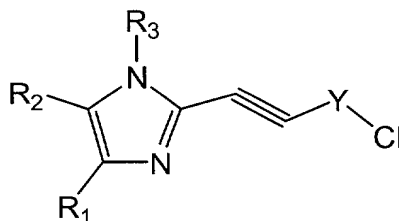
W is a substituent selected from the group consisting of hydrogen, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, aminoC<sub>1-5</sub>alkyl (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl), arylC<sub>1-5</sub>alkyl and heteroarylC<sub>1-5</sub>alkyl (wherein the aryl, heteroaryl and C<sub>1-5</sub>alkyl portions of any of the foregoing substituents are optionally substituted with one to three substituents independently selected from the group consisting of halogen, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, aryl, heteroaryl, amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl) and nitrile);

X is a substituent selected from the group consisting of C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkenyl, C<sub>1-5</sub>alkynyl, C<sub>1-5</sub>alkoxy, amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl),

aminoC<sub>1-5</sub>alkyl (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl), aryl, arylC<sub>1-5</sub>alkyl, heteroaryl and heteroarylC<sub>1-5</sub>alkyl (wherein the aryl, heteroaryl and C<sub>1-5</sub>alkyl portions of any of the foregoing substituents are optionally substituted with one to two substituents independently selected from the group consisting of halogen, C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, aryl, heteroaryl, amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl) and nitrile);

and pharmaceutically acceptable salts thereof; comprising,

converting an intermediate compound of Formula II



Formula II

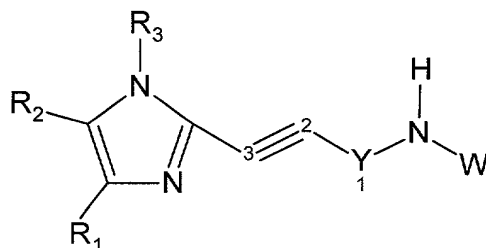
wherein

Y is a three to five member linear alkylene, alkenylene, heteroalkylene or heteroalkenylene chain optionally substituted with one to two substituents independently selected from X; wherein the alkenylene and heteroalkenylene chain has 1 or 2 double bonds formed in the chain between adjacent members; and, wherein the heteroalkylene and heteroalkenylene chain has 1 or 2 members independently selected from the group consisting of O, N and S; and,

all other substituents are as previously defined;

by ammonolysis, using an excess of a compound selected from H<sub>2</sub>N(W) in an appropriate solvent, to form a secondary amine intermediate of Formula III; and,





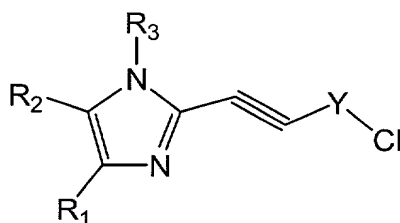
Formula III

coupling the amine at the 2 position of the triple bond by a Michael addition, in the presence of appropriate reagents and solvents, to form the compound of Formula I.

22. The method of claim 21 wherein Y is a three to five member linear alkylene chain optionally substituted with one to two substituents independently selected from X.

23. The method of claim 22 wherein Y is an unsubstituted three to five member linear alkylene chain.

24. An intermediate compound of Formula II



Formula III

wherein

- R<sub>1</sub> is selected from the group consisting of phenyl (optionally substituted with one to five substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, halogen, nitro, trifluoromethyl and nitrile) and heteroaryl (wherein heteroaryl contains 5 to 6 ring atoms);

- R<sub>2</sub> is selected from the group consisting of phenyl (optionally substituted with one to five substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, halogen, nitro, trifluoromethyl and nitrile) and heteroaryl (wherein

heteroaryl contains 5 to 6 ring atoms and is optionally substituted with one to four substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl and halogen);

- 5 R<sub>3</sub> is selected from the group consisting of hydrogen, C<sub>1-5</sub>alkyl, arylC<sub>1-5</sub>alkyl (wherein aryl is optionally substituted with one to four substituents independently selected from the group consisting of C<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxy, halogen and amino (wherein amino is optionally substituted with one to two substituents independently selected from C<sub>1-5</sub>alkyl)), heteroarylC<sub>1-5</sub>alkyl
- 10 (wherein heteroaryl contains 5 to 6 ring atoms), aminoC<sub>1-5</sub>alkyl, diaminoC<sub>1-5</sub>alkyl, phthalimidoC<sub>1-5</sub>alkyl, succinimidoC<sub>1-5</sub>alkyl, SEM, C<sub>1-5</sub>alkylcarbonyl, C<sub>1-5</sub>alkylcarbonylC<sub>1-5</sub>alkyl, C<sub>1-5</sub>alkoxycarbonyl, arylcarbonyl, aryloxycarbonyl, arylC<sub>1-5</sub>alkyloxycarbonyl and aryloxycarbonylC<sub>1-5</sub>alkyl; and,

15 Y is a three to five member linear alkylene, alkenylene, heteroalkylene or heteroalkenylene chain optionally substituted with one to two substituents independently selected from X; wherein the alkenylene and heteroalkenylene chain has 1 or 2 double bonds formed in the chain

20 between adjacent members; and, wherein the heteroalkylene and heteroalkenylene chain has 1 or 2 members independently selected from the group consisting of O, N and S;

with the proviso that Y cannot be selected from (CH<sub>2</sub>)<sub>3</sub>;

and pharmaceutically acceptable salts thereof.

25 25. The compound of claim 24 wherein Y is a four to five member linear alkylene chain optionally substituted with one to two substituents

30 independently selected from X.

26. The method of claim 25 wherein Y is an unsubstituted three to five member linear alkylene chain.

27. A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier or diluent.
28. A pharmaceutical composition comprising a compound according to claim 19 and a pharmaceutically acceptable carrier or diluent.
29. A pharmaceutical composition comprising a compound according to claim 20 and a pharmaceutically acceptable carrier or diluent.
30. A method for treating a cytokine related disease comprising administering a compound of claim 1 to a mammal at an effective dose.
31. A method for treating a cytokine related disease comprising administering a pharmaceutical composition of claim 27 to a mammal at an effective dose.
32. The method of claim 30 wherein the compound of claim 1 is administered orally and the effective dose is from about 0.1 mg/kg/day to about 100 mg/kg/day.
33. The method of claim 32 wherein the effective dose is from about 0.1 mg/kg/day to about 50 mg/kg/day.
34. The method of claim 30 wherein the cytokine related disease is arthritis.
35. The method of claim 34 wherein the compound of claim 1 is administered orally and the effective dose is from about 0.1 mg/kg/day to about 100 mg/kg/day.
36. The method of claim 35 wherein the effective dose is from about 0.1 mg/kg/day to about 50 mg/kg/day.